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UTERINE PATHOLOGY & TREATMENT.

By R. E. BEACH, M. D.

The almost universal prevalence of uterine derangement has induced me to offer a few remarks for your consideration on the above subject. While I may introduce nothing absolutely new, I hope to be able to call your attention to some points of interest.

It is generally supposed that the present state of knowledge of gynæcology has been wholly developed within the nineteenth century. The works of the ancients, however, disprove this as is evidenced by the writings of Galen, Hippocrates, Aræteus, Celsus Paulus, and others, who were not only familiar with the use of the speculum, but accurately describe many of the diseases with which we are now familiar. In the exhumations of Pompeii tri and bivalve specula were found of excellent workmanship, and as the destruction of Pompeii occurred in the year 79, of the Christian era, the speculum must have been in use considerably prior to the time of Galen, who makes the earliest allusion to the speculum of any of the ancient writers.

The science of medicine became very much contaminated with astrology, especially in the hands of the Egyptians. The interest in the study of this branch abated, and not until the earlier part of this century did it receive a new impulse from the hands of Recamier. It has since that date received the attention it fully merited, and to day American gynæcologists rival the world in the successful treatment of uterine diseases. But in this as other special-

ties, "men are prone to become partisans of some special theory or dogma, which is warmly attacked by others who hold some opposite view, equally narrow and exclusive."

In order to combat diseases successfully, it is essential to have a clear and correct conception of the existing pathological condition present. This can only be accomplished by the most careful analyzation and deduction from each particular class of diseases considered. I desire to call your attention more particularly to those conditions of uterine derangement resulting generally from prolonged congestion, and which Thomas designates areolar hyperplasia;—Bennett & Telt internal metritis;—Klob chronic parenchymatous metritis. The opinions of authors are divided in regard to the pathology—some claiming that the enlargement is due to inflammation which has assumed the chronic form, while others contend that it is due to congestion.

The distinctive feature of Bennett's writings are that he locates the disease exclusively in the os and cervex, and that the body of the uterus rarely becomes involved. He also maintains that uterine disease is a local inflammation of the os-externum and cervex, and extends as the disease assumes greater intensity to the substance of the neck, and results in the effusion of lymph, and eventually in the supervention of an ulcer, induration and hypertrophy—that the ulceration is inflammatory in its nature, constantly renews, and indefinitely perpetuates the morbid action going on in the substance of the neck. Scanzoni states that uterine disease consists of an inflammation of sometimes the parenchyma, but more frequently the lining membrane of the uterus. Tyler Smith considers that a highly vascular condition of the cervical mucous membrane occasions hypersecretion from the cervical glands. The os externum being constantly bathed in this secretion becomes eroded. Hypertrophy of the cervex may arise from two causes—a serous effusion into its substance, or a varicose state of the blood vessels. Thomas, in his work on *diseases* of *women*, asserts that hyperplasia of the uterus may result from three entirely different pathological states: "1st, Retrograde metamorphosis of the puerpural uterus from any cause; 2d, By congestions long kept up from mechanical causes, e—g., displacements; 3d, A form of formative or hyper nutrition excited by endometritis." Peaslee, in his lectures on congestions and inflammations of the nongravid uterus, emphatically denies the existence of chronic inflamation. He asserts

that "inflammation is essentially an acute process, i. e. it is perfectly developed and brought to an end in a few days at longest. *Congestion*, on the other hand, may continue through protracted periods—many months and even many years." He denounces the term "chronic inflammation" as a chimera, and says the so called chronic inflammations of the uterus are in reality chronic congestions. Chapman, in his work on diseases and displacements of the uterus, entertains views similar to those expressed by Peaslee. The following is a synopsis of his ideas on the subject: "Menstruation, sexual congress and utero-gestation occasion a physiological congestion of the uterus. That disease whenever arising consists simply in a perversion of natural laws. That the genital organs are especially prone from morbid causes to have this physiological action converted into a pathological action. That an increased blood force develops the embryonic germ cells of the uterus, whence hypertrophy simulating that of pregnancy ensues." He excludes the idea of chronic inflammation of the uterus on the following grounds: The entire absence of the products of inflammation. "By stasis of the blood, as that due to suppression of the menses, subinvolution after abortion, or labor, or to obstruction due to displacement being usually the cause of uterine disease. By true ulceration produced by sponge tents, pessaries, or other extraneous causes, cicatrizing spontaneously, a singular result were the substance of the cervex inflamed and ulcerated. By the so called inflammatory ulcer lacking all the characteristics of an ordinary ulcer, and resisting direct applications, but yielding to depletion of the uterine vessels. By the cervical glands always secreting albumen and never pus." That there is *congestion* and not inflammation is proven "by the puffy and elastic feel of the neck, by its slight increase in temperature, by the trivial pain caused by examination, by the augmented bulk of the uterus, by the congested appearance of the os tincæ as seen per speculum, by the persistence of uterine disease for years with little or no variation, by the restoration of the uterus to its normal state, by local depletion, and by the absence in all cases examined after death, of structural changes and inflammatory products." He also says that a confirmed case of womb disease was never radically cured by general remedies, and more than this, that symptoms even were never permanently relieved. Hence he concludes that uterine disease is primary and not secondary—is not the effect but the cause of constitutional disorders.

I have refrained from commenting upon the views entertained by the authorities whose opinions I have briefly rehearsed My own convictions, resulting from a careful study of uterine pathology, and observation of a limited number of cases which I have treated, force me to accept the views expressed by Chapman and Peaslee.

Any cause which tends to produce prolonged congestion of the uterus or its appendages will inevitably be followed by functional or organic disease. Among the many causes which tend to produce prolonged congestion may be mentioned the following: 1st, Subinvolution; 2d, An altered condition of the nerves governing the circulation of the uterus and ovaries; 3d, Excessive indulgence of the sexual desire; 4th, Mal-positions; 5th, Laceration of the cervex uteri from parturition. Subinvolution, whether it results from abortion, miscarriage, or a normal parturition, is a prime factor in causing uterine disease. The uterus being heavier than normal, its natural supports are weakened and it assumes a faulty position. The normal circulation and enervation is disturbed. Congestion, stasis, and effusion into the parenchyma of the organ follow in their natural order, and a gradual hypergenesis of tissue takes place. A uterus which has previously been healthy, suddenly becomes retroverted. Here we have a condition the results of which, if unrelieved by timely interference, are analagous to those above described. Modern physiologists are agreed that a special set of nerves govern the sexual desire. These are dormant except when stimulated by erotic desires or fancies, and when thus excited, invite an afflux of blood to the genitalia, and a physiological congestion ensues which is relieved by the act of copulation. Excessive indulgence leads to an exalted sensibility of these nerves. The physiological congestion is now converted into a pathalogical congestion, and if the morbid action is not arrested hyperasthesia, hypernutrition and enlargement of the cervex or body of the uterus is the result. Let us stop to enquire the nature of this condition which is denominated by Thomas "Areolor Hyperplasia" Those familiar with the histological elements composing the healthy uterine parenchyma, will remember that it consists of five elements, viz: "1st, Fusiform fibre cells; 2d, Round and oval nuclei, supposed to be elementary fusiform fibre cells; 3d, Connective tissue which permeates the parenchyma and binds together the fibre cells and nuclei; 4th, Fibrillated connective or white fibrous tissue; 5th, Elastic fibrous tissue. These elements, together with nerves, blood vessels

and lymphatics, make up the tissue of the uterus." Under the stimulus of undue excitement these embryonic germ cells are developed, and a condition simulating that of pregnancy is brought about. The increased weight of the organ, especially if there be corporeal hyperplasia, may superinduce mal-positions which as complication will render the disease far more intractable. On reflection it may be readily conceived how the neuralgic and congestive forms of dysmenorrhœa, by inducing a pathological congestion of the uterus, may cause disease. I have previously noticed the influence which mal-positions exert as one of the predisposing causes and shall not again refer to them except in treatment.

To Dr. T. Addis Emmet, of New York, is ascribed the honor of being the first to call the attention of the profession to the fact that laceration of the cervex uteri from parturition is a frequent and unrecognized cause of uterine disease. He remarks that the fissure is frequently mistaken for an ulcer and treated as such. He has written an interesting article "on the proper treatment of laceration of the cervex uteri," which appeared in the "*New York Medical Record*," vol. II., pp. 823. As I am already exceeding the limits originally intended for this paper, I shall not be able to notice the particular treatment recommended in this class of diseases. This as a cause is well worthy of investigation, and to those interested in the subject I would recommend the careful perusal of the article above referred to.

Contrary to the teachings of some writers we find that uterine disease is not confined to multipara, though occurring much more frequently with them than nullipara. The uterus once developed by pregnancy never returns to its original size. Its walls being thicker, veins larger, neck fuller and rounder than that of the virgin uterus. The walls of the uterus in nullipara are dense and unyielding, and resist any considerable accumulation of blood in the veins—a condition necessary for increased nutrition, hence the greater liability of multipara to uterine disease than nullipara. When the virgin uterus does become the seat of disease it usually proves far more intractable than in the multipara. The reason assigned for this is, that the greater capacity of the multiparous uterus for enlargement allows a simple form of congestion to take place that is, when judiciously treated, removed with but little difficulty. On the other hand the dense resisting tissue of the nulliparous uterus, when subjected to an extraordinary amount of blood, it is re-

flected back on the ovaries and a super sensitive or hyperæsthetic state of the uterine nerves ensue, that by instituting and keeping alive an active type of disease greatly adds to the severity of the symptoms.

Treatment.—This may be comprised in the following; *Sublata causa tollitur effectus.* Ascertain nearly as possible the cause; direct your treatment to the removal of this cause, and the effect will cease. Assuming a pathological congestion to be the prime cause of uterine derangement, a treatment should be adopted which will tend to relieve that condition. Perfect rest should be enjoined, especially during menstrual periods; skirt supporters should be worn to remove the superincumbent weight of the clothing. Malpositions of the uterus should be corrected by well adjusted mechanical supports. For ordinary cases of retroversion and anteversions I have found the pessaries devised by Dr. E. Cutter to fulfil every requirement. Local depletion may be effected by scarification or the use of the pledget of cotton, saturated with glycerine, placed against the os and allowed to remain ten or twelve hours. The free use of warm vaginal injections exerts a beneficial influence by washing away morbid secretions, and aids materially in reducing congestion. In a granular condition of the os, Richardson's styptic colloid painted over the os seems to produce good results. "It appears to act as a direct alterative, and by forming a protective crust over the surface, constitutes for it a shield against friction and uterine discharges, and by its constringing effects diminishes local congestion." Direct local applications exert an alterative effect upon the nerves governing the nutrition and circulation. For this purpose nothing excels the stick of nitrate of silver. Pure carbolic acid and tincture iodine, equal parts, form an excellent combination. These remedies when applied locally produce an alterative effect upon the glands and mucous membrane of the cervical canal, modifying and diminishing secretion. The benefit derived from the sponge tent, plain or carbolized, I attribute to its mechanical action, and while it is almost indispensable in the treatment of certain forms of uterine disease, it is capable of producing serious mischief. They are inadmissable where the uterus has become bound down by adhesions, the result of pelvic cellulitis. As a rule, no local application should be made just before or immediately after the menstrual flow. Should the symptoms point to a granular condition of the cervical canal, a sponge tent should

be introduced, and after the canal is well dilated, the curette used thoroughly and effectually. When there exists much thickening of the endometrium with hypersecretion the benefit derived from the occasional introduction of a sponge tent cannot be denied. After its removal we are better enabled to bring local remedies directly and more thoroughly in contact with the diseased surface. When there is considerable enlargement or elongation of the os externum, which cannot be reduced by the more ordinary methods, we are justified in attempting its removal either by the curved scissors (with edges serrated) ecraseur or the galvano cautery. The only instrument with which I have had any practical experience and which is amply sufficient for this purpose is Byrne's Galvano Cautery. It is small, compact, and can be relied upon. I shall here take occasion to describe two typical cases of uterine disease occurring in my own practice, which will I think serve more fully to illustrate the preceding remarks. Mr. M—— brought his daughter to me for advice in October, 1875. The following history is taken from notes of the case.

Mary M., aet 27; single; of medium hight; moderately developed; nervous temperment, suffers almost constantly with neuralgic disorders, pseudo angina pectoris, pleurodynia and cephalgia; appetite poor; bowels constipated; menstruation regular but painful. Complains of great uneasiness in the præcordial region. Pulse 100, and regular. Physical examination failed to discover any organic affection of the heart, lungs, liver, or kidneys. Pressure over the hypogastric region produced some pain. I suspected some uterine disease, and asked for permission to make an examination, which was not granted. The case fell into the hands of an irregular, who treated her for dyspepsia until he learned by accident that I had suspected uterine disease, when he asked and gained permission to make a vaginal examination. He diagnosed prolapsus uteri and applied a McIntosh uterine supporter. As he utterly failed to relieve her (though by the way he managed to secure about forty dollars for the supporter and advice ?) the case again returned to me for treatment. Examination per speculum revealed the os congested and slightly enlarged. A gelatinous plug of mucus hanging from the os tincæ gave evidence of the hypersecretion of the Nabothian glands. The introduction of the sound showed the uterus slightly retroflexed—depth normal. The vagina was intensely congested at its superior portion. The introduction of the speculum, which was

a small valvular one, produced considerable pain. I removed the secretions and applied to the cervical canal the following :

℞ Acidi Cabolici, 95 ℘ct. - - - - - 3 ss
Tr. Iodinii, - - - - - - - 3 i
Mix.

I then placed a pledget of cotton saturated with glycerine against the os externum, and directed its removal on the following morning by the means of a thread which was attached to the cotton and allowed to project beyond the labiæ—the removal to be followed by copious injections of warm water. I introduced occasionally a small sponge tent with a view of endeavoring to correct the retroflexion. The local treatment was continued about eight weeks at intervals of from three to five days between applications. She then declared herself so much relieved that treatment was discontinued. (At the date of writing this article Miss M.—— continues in pretty fair health, the dysmenorrhœa—which was a prominent symptom, and which was I presume due to the retroflexed position of the uterus having nearly disappeared.)

Mrs. E. —— visited me in August, 1876, for advice. Her family physician had diagnosed valvular disease of the heart, and told her that death might occur at any moment. The following is a history of the case and treatment as nearly as I can recollect—a part of the notes referring to the case having been lost. Mrs. E., aet 23, full habit, has been married about fifteen months, she was confined at full term, about twelve months after date of marriage, and gave birth to a still-born child. Health previous to confinement good. One week subsequent to confinement became subject to what was, I presume, a hysterical affection, dependent upon uterine irritation, which recurred at irregular intervals and showed no tendency to periodicity. Yet her medical advisers pronounced them of malarial origin, and prescribed quinine in both antiperiodic and tonic doses, with stimulants *ad lib, ad infinitum*. She obtained no relief, and up to the time she visited me (about three months subsequent to the first attack) they had been gradually increasing in frequency and severity. Present condition, full habit; appetite poor; bowels constipated; tongue coated; pulse about 85 and regular. Is subject at irregular intervals (sometimes occurring as often as twice daily) to what she terms "spells." During the attack the pulse is rapid, feeble and irregular. The extremities become cold and cyanotic as far as elbows and knees; com-

plains of great distress in the præcordial region, and a sense of weight in the epigastrium; breathing labored and apparently difficult. A careful examination failed to develop any organic disease of the thoracic viscera. Examination per speculum revealed the os congested and œdematous, with os tincæ patulous; profuse secretion from both uterus and vagina. The sound entered the uterus to the depth of three and a half inches. Uterus slightly retroverted. Diagnosis, subinvolution. The mal-position, congestion of the os and cervex, being dependent upon this condition, prescribed the following :

℞	Potass Bromid - - - - - -	ʒ ss
	Potass Iodidi - - - - - -	ʒ i ss
	Syr Zingiber - - - - - -	fl ʒ ii
	Aquae Dest q s ad - - - - -	fl ʒ ii

M Sig —A teaspoonful three times daily in a little water. Also a saline aperient to keep the bowels freely soluble.

As a local application used the carbolic acid and iodine before referred to. Occasionally used the solid stick of silver. This with scarifications of the os and the use of the tampon saturated with glycerine, its removal to be followed with injections of warm water, constituted the local treatment, with the exception of the occasional introduction of the sponge tent. At the expiration of eight or ten weeks I had the satisfaction to find her restored to almost perfect health, nor has she had any return of the symptoms to this date.

Now, while I deprecate the practice of referring all mental, gastric, hepatic, or urinary disorders occurring in the female to uterine derangement, these two cases may serve to direct your attention to a train of anomalous symptoms, which if rightly interpreted will rarely mislead you. I regret that a lengthened consideration of the pathology of uterine disease has forced me to abbreviate an important part of my subject, viz : treatment.

In conclusion I will say that in the preparation of this article I have fully appreciated the difficult and complex nature of the subject under consideration. That it is written in a desultory manner I will admit, which is in part due to its hurried preparation. Want of time for deliberation and reflection has perhaps caused me to omit many important features. Under these circumstances I trust you will kindly overlook all discrepancies.